

## **APPENDIX 13**

### **CLOSURE COST ESTIMATE**

# FACILITY SUMMARY

Facility Name: KW PLASTICS OF

Facility Sequence: 1

Facility EPA ID: CAD982435026

## UNIT COST ESTIMATES

Unit Name		Number of Units	Cost To Close
1.	Container Storage Areas		\$0
2.	Tank Systems	3	\$350,753
3.	Surface Impoundments		\$0
4.	Waste Piles		\$0
5.	Land Treatment		\$0
6.	Landfills		\$0
7.	Incinerators and BIFs		\$0
8.	Drip Pads		\$0
9.	Containment Buildings		\$0
10.	Injection Wells		\$0
11.	<b>Total Closure Costs</b>		\$350,753
12.	Post-Closure Care		\$0
13.	User Defined Additional Costs		\$0
<b>TOTAL COST OF CLOSURE AND POST CLOSURE(Rounded to</b>			<b>\$350,000) \$350,753</b>

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1 Form Sequence: 1

1 UNIT DESCRIPTION AND MAXIMUM PERMITTED CAPACITY			
1.A	Type of tank system	aboveground	
1.B	Height or length of tank	0 ft	
1.C	Diameter of tank	0 ft	
1.D	Maximum permitted capacity of the tank	14,031 gal	
1.E	Total length of ancillary piping	936.0 ft	
1.F	Nominal size of ancillary piping	6.00 in	
1.G	Maximum capacity of ancillary piping		1,404 gal
1.H	Maximum capacity of tank and ancillary piping		15,435 gal
2 SURFACE AREA OF TANK SYSTEM			
2	Surface area of tank	1,288.3 ft <sup>2</sup>	

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

<b>3 VOLUME OF TANK SYSTEM TO BE REMOVED</b>			
3.A	Volume of Tank System to be Removed		1,875.8 ft <sup>3</sup>
3.B	Volume of Tank System to be Removed in yd <sup>3</sup>		69.5 yd <sup>3</sup>
<b>4 SURFACE AREA OF SECONDARY CONTAINMENT SYSTEM</b>			
4.A	Length	76.5 ft	
4.B	Width	28.8 ft	
4.C	Surface Area of Secondary Containment System Pad		2,203.2 ft <sup>2</sup>
4.D	Surface Area of Secondary Containment System Pad in yd <sup>2</sup>		244.8 yd <sup>2</sup>
<b>5 VOLUME OF SECONDARY CONTAINMENT SYSTEM</b>			
5.A	Thickness	0.75 ft	
5.B	Volume of Secondary Containment Pad		61.2 yd <sup>3</sup>
<b>6 SURFACE AREA OF SECONDARY CONTAINMENT SYSTEM BERM</b>			
6.A	Total Length	152.5 ft	
6.B	Height	3.00 ft	
6.C	Surface Area of Secondary Containment System Berm		457.5 ft <sup>2</sup>
6.D	Surface Area of Secondary Containment System Berm in yd <sup>2</sup>		50.8 yd <sup>2</sup>

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

<b>7 VOLUME OF SECONDARY CONTAINMENT SYSTEM BERM</b>			
7.A	Thickness	0.50 ft	
7.B	Volume of Secondary Containment System Berm		8.5 yd <sup>3</sup>
<b>8 SURFACE AREA OF OTHER STRUCTURES IN SECONDARY CONTAINMENT SYSTEM</b>			
8.A	Surface Area of Other Structures		80.0 ft <sup>2</sup>
8.B	Surface Area of Other Structures in yd <sup>2</sup>		8.9 yd <sup>2</sup>
<b>9 VOLUME OF OTHER STRUCTURES IN SECONDARY CONTAINMENT SYSTEM</b>			
9	Volume of Other Structures		2.4 yd <sup>3</sup>
<b>10 VOLUME OF CONTAMINATED SOIL TO BE REMOVED</b>			
10.A	Length	0.0 ft	
10.B	Width	0.0 ft	
10.C	Depth	0.00 ft	
10.D	Volume of Contaminated Soil to be Removed		0.0 ft <sup>3</sup>
10.E	Volume of Contaminated Soil to be Removed in yd <sup>3</sup>		0.0 yd <sup>3</sup>

Forced ancillary piping dimensions to produce approximately 10% of tank volume as maximum capacity of ancillary piping.

Tank System 1 and 3 includes Tank 1, Tank 3, Storm Water Collection Sump, Decontamination Water Collection Sump equals 300 gallons and Decontamination Water Collection Sump equals 337 gallons.

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

## SUMMARY WORKSHEET

Activity		Worksheet Number	Cost
1.	Removal of Waste	TS-3	\$345
2.	Tank System Purging (ignitable wastes only)	TS-4	\$0
3.	Flushing the Tank and Piping	TS-5	\$0
4.	Excavation, Disassembly, and Loading	TS-6	\$7,325
5.	Demolition and Removal of Containment System	TS-7	\$0
6.	Removal of Soil	TS-8	\$0
7.	Backfill and Grading	BF-1	\$0
8.	Decontamination	DC-1	\$9,229
9.	Sampling and Analysis	SA-2	\$168
10.	Monitoring Well Installation	MW-1	\$0
11.	Transportation	TR-1	\$3,870
12.	Treatment and Disposal	TD-1	\$68,971
13.	User Defined Cost	UD-1	\$0
14.	<b>Subtotal of Closure Costs</b>		<b>\$89,908</b>
15.	Engineering Expenses      Percent Applied      10.00 %		\$8,991
16.	Certification of Closure	TS-09	\$3,640
17.	<b>Subtotal</b>		<b>\$102,539</b>
18.	Contingency Allowance      Percent Applied      20.00 %		\$20,508
19.	Landfill Closure (Cover Installation)	CI-2	\$0
<b>TOTAL COST OF CLOSURE      (Rounded to      \$120,000 )</b>			<b>\$123,047</b>

Tank Systems includes Tanks 1 and 3, the Decontamination Water Collection Sump, the Storm Water Collection Sump, and the secondary containment for the new treatment area.

# TANK SYSTEMS

# TS-3

REMOVAL OF WASTE - Page 1 of 1

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1 Form Sequence: 1

1	Maximum volume of waste to be removed from the tank and ancillary piping	15,435 gal	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$115.16 /work hr Protection Level D	
3	Work rate required to remove waste from tank and ancillary piping	0.00017 work hr/ gal capacity	
4	Number of hours required to remove waste from tank and ancillary piping	3.0 work hrs	
TOTAL COST OF REMOVAL OF WASTE FROM TANK AND ANCILLARY PIPING			\$345

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1 Form Sequence: 1

<b>1 EXCAVATION AND LOADING (FOR IN-GROUND AND UNDERGROUND TANKS ONLY)</b>			
1.A	Capacity of tank	0 gal	
1.B	Labor and equipment cost per work hour Appropriate level of PPE	\$0.00 /work hr Protection Level D	
1.C	Work rate required to excavate and load tank per gallon capacity	0.00220 work hr/ gal capacity	
1.D	Number of hours required to excavate and load tank	0.0 work hrs	
1.E	<b>Cost to Excavate and Load Tank</b>		<b>\$0</b>
<b>2 DISASSEMBLY OF ANCILLARY PIPING</b>			
2.A	Length of ancillary piping to be disassembled	936.0 ft	
2.B	Labor and equipment cost per work hour Appropriate level of PPE	\$46.55 /work hr Protection Level D	
2.C	Work rate required to disassemble one ft of pipe	0.15000 work hr/ft	
2.D	Number of hours required to disassemble ancillary piping	140.5 work hrs	
2.E	<b>Cost of Disassembly of Ancillary Piping</b>		<b>\$6,540</b>



## EXCAVATION, DISASSEMBLY, AND LOADING - Page 2 of 2

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

3 LOADING (FOR ON-GROUND AND ABOVEGROUND TANKS ONLY)			
3.A	Capacity of tank	14,031 gal	
3.B	Labor and equipment cost per work hour Appropriate level of PPE	\$50.66 /work hr Protection Level D	
3.C	Work rate required to load tank per gallon capacity	0.00110 work hr/ gal capacity	
3.D	Number of hours required to load tank	15.5 work hrs	
3.E	Cost to Load Tank		\$785
TOTAL COST OF EXCAVATION, DISASSEMBLY, AND LOADING			\$7,325

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

Form Sequence: 1

1	Number of units requiring certification of closure	1	
2	Cost of certification of closure per unit	\$3,640	
TOTAL COST OF CERTIFICATION OF CLOSURE			\$3,640

# DECONTAMINATION

DC-1

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

## SUMMARY WORKSHEET

Activity		Worksheet Number	Cost
1.	Decontamination of Unit by Steam Cleaning or Pressure Washing	DC-2	\$8,782
2.	Decontamination of Unit by Sandblasting	DC-3	\$0
3.	Decontamination of Heavy Equipment	DC-4	\$447
TOTAL COST OF DECONTAMINATION			\$9,229

# DECONTAMINATION

**DC-2****DECONTAMINATION OF UNIT BY STEAM CLEANING OR PRESSURE WASHING - Page 1 of 1**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1 Form Sequence: 1

1	Area of unit to be decontaminated	5,317.3 ft <sup>2</sup>	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$41.23 /work hr Protection Level D	
3	Work rate to steam clean or pressure wash one ft <sup>2</sup>	0.04000 work hr/ ft <sup>2</sup>	
4	Number of hours required to steam clean or pressure wash the unit	213.0 work hrs	
5	Subtotal of labor and equipment costs to decontaminate unit by steam cleaning or pressure washing		\$8,782
6	Volume of decontamination fluid generated	21,269 gal	
7	Number of drums required to contain decontamination fluid for removal	0 drums	
8	Cost of one drum	\$62.05 /drum	
9	Cost of drums needed to contain decontamination fluid		\$0
<b>TOTAL COST OF DECONTAMINATION OF UNIT BY STEAM CLEANING OR PRESSURE WASHING</b>			<b>\$8,782</b>

User selected BULK for holding decontamination fluid

Surface area to be cleaned includes Tanks 1, 3, Decontamination Water Collection Sump, Storm Water Collection Sump, and the containment structure for the new treatment system.

# DECONTAMINATION

**DC-4****DECONTAMINATION OF HEAVY EQUIPMENT - Page 1 of 1**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1 Form Sequence: 1

1	Number of hours needed to decontaminate all heavy equipment	10 work hrs	
2	Cost of steam cleaner rental per hour	\$8.89 /hr	
3	Subtotal of steam cleaner rental costs		\$89
4	Labor cost per work hour Appropriate level of PPE	\$35.75 /work hr Protection Level D	
5	Subtotal of labor costs		\$358
6	Volume of decontamination fluid	1,000 gal	
7	Number of drums required to contain decontamination fluid for removal	0 drums	
8	Cost of one drum	\$62.05 /drum	
9	Cost of drums needed to contain decontamination fluid		\$0
10	Cost of construction of temporary decontamination area for heavy equipment.		\$0
11	Cost of demolition of temporary decontamination area for heavy equipment.		\$0
<b>TOTAL COST OF DECONTAMINATION OF HEAVY EQUIPMENT</b>			<b>\$447</b>

User selected BULK for holding decontamination fluid

Assumed 2 augers for Tanks 1 and 3, plus 1 grinder on Tank 3 at 2 hours per piece of equipment. Costs associated with temporary decontamination area are accounted for in costs for closure of Tanks 9 and 10.

# SAMPLING AND ANALYSIS

**SA-1***INVENTORY - Page 1 of 1*

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

<b>1 NUMBER OF DRILLING AND SUBSURFACE SOIL SAMPLES</b>		
<b>1</b>	<b>Number of Drilling and Subsurface Soil Samples</b>	<b>0 samples</b>
<b>2 NUMBER OF CONCRETE CORE SAMPLES</b>		
<b>2</b>	<b>Number of Concrete Core Samples</b>	<b>0 samples</b>
<b>3 NUMBER OF WIPE SAMPLE LOCATIONS</b>		
<b>3</b>	<b>Number of Wipe Sample Locations</b>	<b>0 sample locations</b>
<b>4 NUMBER OF SURFACE WATER AND LIQUID SAMPLE LOCATIONS</b>		
<b>4</b>	<b>Number of Surface Water and Liquid Sample Locations</b>	<b>3 sample locations</b>
<b>5 NUMBER OF SOIL, SLUDGE, AND SEDIMENT SAMPLE LOCATIONS</b>		
<b>5</b>	<b>Number of Soil, Sludge, and Sediment Sample Locations</b>	<b>0 sample locations</b>
<b>6 NUMBER OF GROUNDWATER SAMPLE LOCATIONS</b>		
<b>6</b>	<b>Number of Groundwater Sample Locations</b>	<b>0 sample locations</b>
<b>7 NUMBER OF LYSIMETERS TO BE SAMPLED</b>		
<b>7</b>	<b>Number of Lysimeters to be Sampled</b>	<b>0 lysimeters</b>

Assumed one sample of water for each tank of decontamination fluid.

Facility Name: KW PLASTICS OF CALIFORNIA

Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Sequence: 1

Form Sequence: 1

**SUMMARY WORKSHEET**

Activity		Worksheet Number	Cost
1.	Drilling and Subsurface Soil Sample	SA-3	\$0
2.	Concrete Core Sample	SA-4	\$0
3.	Wipe Sample	SA-5	\$0
4.	Surface Water and Liquid Sample	SA-6	\$168
5.	Soil, Sludge, and Sediment Sample	SA-7	\$0
6.	Groundwater Sample	SA-8	\$0
7.	Soil-Pore Liquid Sample	SA-9	\$0
8.	Analysis of Subsurface Soil Sample	SA-10	\$0
TOTAL SAMPLING AND ANALYSIS COST			\$168

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

Form Sequence: 1

<b>1 COLLECTION OF SURFACE WATER AND LIQUID SAMPLES</b>			
1.A	Number of sampling locations	3 sample locations	
1.B	Labor and equipment cost per work hour Appropriate level of PPE	\$91.88 /work hr Protection Level D	
1.C	Work rate to collect samples from one sampling location	0.500 work hr /location	
1.D	Number of hours required to collect all samples	1.5 work hrs	
1.E	<b>Cost of Collection per Sampling Event</b>		<b>\$138 /event</b>
<b>2 ANALYSIS OF SURFACE WATER AND LIQUID SAMPLE</b>			
2	<b>Cost of Analysis per Sampling Event (total from next page)</b>		<b>\$30 /event</b>
<b>3 SAMPLING EVENTS</b>			
3	Number of sampling events	1 events	
<b>TOTAL COST OF SAMPLING AND ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES</b>			<b>\$168</b>



# SAMPLING AND ANALYSIS

**SA-6****SURFACE WATER AND LIQUID SAMPLE ATTACHMENT- Page 2 of 2**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

**Cost of Analysis per Sampling Event  
Reference for Line 2.A**

Column 1  Analytical Parameter and Method Reference	Column 2  Cost of Analysis (\$) per Parameter	Column 3  Number of Analyses, including QC Analyses	Column 4  Total Cost of Analysis (\$) per Parameter per Event
Lead	\$10.00	3	\$30.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
TOTAL COST FOR ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES			\$30 /event

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/30/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

Form Sequence: 1

**1 TRANSPORTATION OF WASTE IN DRUMS**

1.A	Number of drums of waste	0 drums	
1.B	Number of truckloads needed to transport waste in drums (80 drums per truckload)	0 truckloads	
1.C	Type of Waste Hazardous 300 miles at \$3.15 /mile		
1.D	Cost to transport one truckload of 55-gallon drums	\$945 /truckload	
1.E	<b>Cost to Transport Waste in Drums</b>		<b>\$0</b>

**2 TRANSPORTATION OF BULK LIQUIDS**

2.A	Gallons of liquid waste	15,435 gal	
2.B	Number of truckloads needed to transport bulk free liquid waste (6,900 gallons per truckload)	3 truckloads	
2.C	Type of Waste Hazardous 300 miles at \$4.30 /mile		
2.D	Cost to transport one truckload of bulk liquids	\$1,290 /truckload	
2.E	<b>Cost to Transport Bulk Liquid Waste</b>		<b>\$3,870</b>

**3 TRANSPORTATION OF BULK WASTE**

3.A	Number of waste debris boxes	0 debris boxes	
3.B	Number of truckloads needed to transport bulk waste (one debris box per truckload)	0 truckloads	
3.C	Type of Waste Hazardous 300 miles at \$3.15 /mile		
3.D	Cost to transport one truckload of bulk waste 250 miles	\$945 /truckload	
3.E	Cost to Transport Bulk Waste		
TOTAL COST OF TRANSPORTATION OF WASTE			\$3,870

# TREATMENT AND DISPOSAL

TD-1

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

## SUMMARY WORKSHEET

Activity		Worksheet Number	Cost
1.	Treatment and Disposal of Waste	TD-2	\$42,053
2.	Transportation and Disposal of Decontamination Fluids	TD-3	\$26,918
TOTAL COST OF TREATMENT AND DISPOSAL			\$68,971

# TREATMENT AND DISPOSAL

**TD-2***TREATMENT AND DISPOSAL- Page 1 of 2*

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1

Form Sequence: 1

1 TREATMENT AND DISPOSAL OF WASTE 1			
1.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	76.4 yd <sup>3</sup>	
1.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
1.C	Amount in tons of waste to be treated and disposed of	64.4 tons	
1.D	Treatment and disposal cost per ton	\$653.00 /ton	
1.E	Cost to Treat and Dispose of Waste 1		\$42,053
2 TREATMENT AND DISPOSAL OF WASTE 2 0			
2.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
2.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
2.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
2.D	Treatment and disposal cost per ton	\$0.00 /ton	
2.E	Cost to Treat and Dispose of Waste 2		\$0

# TREATMENT AND DISPOSAL

**TD-2**

TREATMENT AND DISPOSAL- Page 2 of 2

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 1 AND 3

Unit Sequence: 1 Form Sequence: 1

<b>3 TREATMENT AND DISPOSAL OF WASTE 3 0</b>			
3.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
3.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
3.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
3.D	Treatment and disposal cost per ton	\$0.00 /ton	
3.E	<b>Cost to Treat and Dispose of Waste 3</b>		<b>\$0</b>
<b>4 TREATMENT AND DISPOSAL OF WASTE 4</b>			
4.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
4.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
4.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
4.D	Treatment and disposal cost per ton	\$0.00 /ton	
4.E	<b>Cost to Treat and Dispose of Waste 4</b>		<b>\$0</b>
<b>TOTAL COST OF TREATMENT AND DISPOSAL</b>			<b>\$42,053</b>

Waste 1 includes tank and piping contents of Tanks 1, 3, Decontamination Water Collection Sump, and Storm Water Collection Sump.

# TREATMENT AND DISPOSAL

**TD-3****TRANSPORTATION AND DISPOSAL OF DECONTAMINATION FLUIDS- Page 1 of 1****Facility Name: KW PLASTICS OF CALIFORNIA****Facility Sequence: 1****07/27/2007****Unit Name: TANKS 1 AND 3****Unit Sequence: 1 Form Sequence: 1**

1	Volume of decontamination fluid generated from closure activities	22,269 total gal	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$48.19 /work hr Protection Level D	
3	Work rate to pump decontamination fluid to a holding tank	0.00007 work hrs/ gallon	
4	Number of hours required to pump decontamination fluid to a holding tank	2 work hrs	
5	Subtotal of labor and equipment costs to pump decontamination fluid to a holding tank		\$96
6	Number of days required to rent holding tank	1 days	
7	Holding tank rental fee (10,000 gal tank per day)	\$330 /day	
8	Number of tanks required	3 tanks	
9	Subtotal of tank rental costs		\$990
10	Transportation and disposal costs for bulk liquid	\$1.16 /gal	\$25,832
<b>TOTAL COST TO TRANSPORT AND DISPOSE OF DECONTAMINATION FLUID AS A BULK LIQUID</b>			<b>\$26,918</b>

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2 Form Sequence: 1

1 UNIT DESCRIPTION AND MAXIMUM PERMITTED CAPACITY			
1.A	Type of tank system	aboveground	
1.B	Height or length of tank	0 ft	
1.C	Diameter of tank	0 ft	
1.D	Maximum permitted capacity of the tank	13,623 gal	
1.E	Total length of ancillary piping	910.0 ft	
1.F	Nominal size of ancillary piping	6.00 in	
1.G	Maximum capacity of ancillary piping		1,365 gal
1.H	Maximum capacity of tank and ancillary piping		14,988 gal
2 SURFACE AREA OF TANK SYSTEM			
2	Surface area of tank	1,220.6 ft <sup>2</sup>	

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

<b>3 VOLUME OF TANK SYSTEM TO BE REMOVED</b>			
3.A	Volume of Tank System to be Removed		1,821.3 ft <sup>3</sup>
3.B	Volume of Tank System to be Removed in yd <sup>3</sup>		67.5 yd <sup>3</sup>
<b>4 SURFACE AREA OF SECONDARY CONTAINMENT SYSTEM</b>			
4.A	Length	0.0 ft	
4.B	Width	0.0 ft	
4.C	Surface Area of Secondary Containment System Pad		0.0 ft <sup>2</sup>
4.D	Surface Area of Secondary Containment System Pad in yd <sup>2</sup>		0.0 yd <sup>2</sup>
<b>5 VOLUME OF SECONDARY CONTAINMENT SYSTEM</b>			
5.A	Thickness	0.00 ft	
5.B	Volume of Secondary Containment Pad		0.0 yd <sup>3</sup>
<b>6 SURFACE AREA OF SECONDARY CONTAINMENT SYSTEM BERM</b>			
6.A	Total Length	0.0 ft	
6.B	Height	0.00 ft	
6.C	Surface Area of Secondary Containment System Berm		0.0 ft <sup>2</sup>
6.D	Surface Area of Secondary Containment System Berm in yd <sup>2</sup>		0.0 yd <sup>2</sup>



Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

<b>7 VOLUME OF SECONDARY CONTAINMENT SYSTEM BERM</b>			
7.A	Thickness	0.00 ft	
7.B	Volume of Secondary Containment System Berm		0.0 yd <sup>3</sup>
<b>8 SURFACE AREA OF OTHER STRUCTURES IN SECONDARY CONTAINMENT SYSTEM</b>			
8.A	Surface Area of Other Structures		0.0 ft <sup>2</sup>
8.B	Surface Area of Other Structures in yd <sup>2</sup>		0.0 yd <sup>2</sup>
<b>9 VOLUME OF OTHER STRUCTURES IN SECONDARY CONTAINMENT SYSTEM</b>			
9	Volume of Other Structures		0.0 yd <sup>3</sup>
<b>10 VOLUME OF CONTAMINATED SOIL TO BE REMOVED</b>			
10.A	Length	0.0 ft	
10.B	Width	0.0 ft	
10.C	Depth	0.00 ft	
10.D	Volume of Contaminated Soil to be Removed		0.0 ft <sup>3</sup>
10.E	Volume of Contaminated Soil to be Removed in yd <sup>3</sup>		0.0 yd <sup>3</sup>

Secondary containment considerations are accounted for in Calculations for Unit [Tanks 1 and 3] and Unit 4 [Tanks 9 and 10].

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

## SUMMARY WORKSHEET

Activity		Worksheet Number	Cost
1.	Removal of Waste	TS-3	\$345
2.	Tank System Purging (ignitable wastes only)	TS-4	\$0
3.	Flushing the Tank and Piping	TS-5	\$0
4.	Excavation, Disassembly, and Loading	TS-6	\$7,114
5.	Demolition and Removal of Containment System	TS-7	\$0
6.	Removal of Soil	TS-8	\$0
7.	Backfill and Grading	BF-1	\$0
8.	Decontamination	DC-1	\$4,488
9.	Sampling and Analysis	SA-2	\$168
10.	Monitoring Well Installation	MW-1	\$0
11.	Transportation	TR-1	\$3,870
12.	Treatment and Disposal	TD-1	\$54,008
13.	User Defined Cost	UD-1	\$0
14.	<b>Subtotal of Closure Costs</b>		<b>\$69,993</b>
15.	Engineering Expenses	Percent Applied 10.00 %	\$6,999
16.	Certification of Closure	TS-09	\$3,640
17.	<b>Subtotal</b>		<b>\$80,632</b>
18.	Contingency Allowance	Percent Applied 20.00 %	\$16,126
19.	Landfill Closure (Cover Installation)	CI-2	\$0
<b>TOTAL COST OF CLOSURE</b> (Rounded to \$97,000 )			<b>\$96,758</b>

Includes Tanks 2, 4, 5, 6, 7, and 8. Secondary containment is not included, but is included with Unit 1 [Tanks 1 and 3] and Unit 4 [Tanks 9 and 10].

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2 Form Sequence: 1

1	Maximum volume of waste to be removed from the tank and ancillary piping	14,988 gal	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$115.16 /work hr Protection Level D	
3	Work rate required to remove waste from tank and ancillary piping	0.00017 work hr/ gal capacity	
4	Number of hours required to remove waste from tank and ancillary piping	3.0 work hrs	
TOTAL COST OF REMOVAL OF WASTE FROM TANK AND ANCILLARY PIPING			\$345

## EXCAVATION, DISASSEMBLY, AND LOADING - Page 1 of 2

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2 Form Sequence: 1

1 EXCAVATION AND LOADING (FOR IN-GROUND AND UNDERGROUND TANKS ONLY)			
1.A	Capacity of tank	0 gal	
1.B	Labor and equipment cost per work hour Appropriate level of PPE	\$0.00 /work hr Protection Level D	
1.C	Work rate required to excavate and load tank per gallon capacity	0.00220 work hr/ gal capacity	
1.D	Number of hours required to excavate and load tank	0.0 work hrs	
1.E	Cost to Excavate and Load Tank		\$0
2 DISASSEMBLY OF ANCILLARY PIPING			
2.A	Length of ancillary piping to be disassembled	910.0 ft	
2.B	Labor and equipment cost per work hour Appropriate level of PPE	\$46.55 /work hr Protection Level D	
2.C	Work rate required to disassemble one ft of pipe	0.15000 work hr/ft	
2.D	Number of hours required to disassemble ancillary piping	136.5 work hrs	
2.E	Cost of Disassembly of Ancillary Piping		\$6,354

## EXCAVATION, DISASSEMBLY, AND LOADING - Page 2 of 2

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

3 LOADING (FOR ON-GROUND AND ABOVEGROUND TANKS ONLY)		
3.A	Capacity of tank	13,623 gal
3.B	Labor and equipment cost per work hour Appropriate level of PPE	\$50.66 /work hr Protection Level D
3.C	Work rate required to load tank per gallon capacity	0.00110 work hr/ gal capacity
3.D	Number of hours required to load tank	15.0 work hrs
3.E	Cost to Load Tank	\$760
TOTAL COST OF EXCAVATION, DISASSEMBLY, AND LOADING		\$7,114

**CERTIFICATION OF CLOSURE - Page 1 of 1**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1 07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2 Form Sequence: 1

1	Number of units requiring certification of closure	1	
2	Cost of certification of closure per unit	\$3,640	
TOTAL COST OF CERTIFICATION OF CLOSURE			\$3,640

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

**SUMMARY WORKSHEET**

Activity		Worksheet Number	Cost
1.	Decontamination of Unit by Steam Cleaning or Pressure Washing	DC-2	\$4,041
2.	Decontamination of Unit by Sandblasting	DC-3	\$0
3.	Decontamination of Heavy Equipment	DC-4	\$447
<b>TOTAL COST OF DECONTAMINATION</b>			<b>\$4,488</b>

# DECONTAMINATION

**DC-2****DECONTAMINATION OF UNIT BY STEAM CLEANING OR PRESSURE WASHING - Page 1 of 1**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2 Form Sequence: 1

1	Area of unit to be decontaminated	2,441.2 ft <sup>2</sup>	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$41.23 /work hr Protection Level D	
3	Work rate to steam clean or pressure wash one ft <sup>2</sup>	0.04000 work hr/ ft <sup>2</sup>	
4	Number of hours required to steam clean or pressure wash the unit	98.0 work hrs	
5	Subtotal of labor and equipment costs to decontaminate unit by steam cleaning or pressure washing		\$4,041
6	Volume of decontamination fluid generated	9,765 gal	
7	Number of drums required to contain decontamination fluid for removal	0 drums	
8	Cost of one drum	\$62.05 /drum	
9	Cost of drums needed to contain decontamination fluid		\$0
TOTAL COST OF DECONTAMINATION OF UNIT BY STEAM CLEANING OR PRESSURE WASHING			\$4,041

User selected BULK for holding decontamination fluid



# DECONTAMINATION

**DC-4****DECONTAMINATION OF HEAVY EQUIPMENT - Page 1 of 1**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2 Form Sequence: 1

1	Number of hours needed to decontaminate all heavy equipment	10 work hrs	
2	Cost of steam cleaner rental per hour	\$8.89 /hr	
3	Subtotal of steam cleaner rental costs		\$89
4	Labor cost per work hour Appropriate level of PPE	\$35.75 /work hr Protection Level D	
5	Subtotal of labor costs		\$358
6	Volume of decontamination fluid	1,000 gal	
7	Number of drums required to contain decontamination fluid for removal	0 drums	
8	Cost of one drum	\$62.05 /drum	
9	Cost of drums needed to contain decontamination fluid		\$0
10	Cost of construction of temporary decontamination area for heavy equipment.		\$0
11	Cost of demolition of temporary decontamination area for heavy equipment.		\$0
<b>TOTAL COST OF DECONTAMINATION OF HEAVY EQUIPMENT</b>			<b>\$447</b>

User selected BULK for holding decontamination fluid

Assumed decontamination of two augers and three spin dryers requiring 2 hours for each piece of equipment.

# SAMPLING AND ANALYSIS

**SA-1***INVENTORY - Page 1 of 1*

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

<b>1 NUMBER OF DRILLING AND SUBSURFACE SOIL SAMPLES</b>		
<b>1</b>	<b>Number of Drilling and Subsurface Soil Samples</b>	<b>0 samples</b>
<b>2 NUMBER OF CONCRETE CORE SAMPLES</b>		
<b>2</b>	<b>Number of Concrete Core Samples</b>	<b>0 samples</b>
<b>3 NUMBER OF WIPE SAMPLE LOCATIONS</b>		
<b>3</b>	<b>Number of Wipe Sample Locations</b>	<b>0 sample locations</b>
<b>4 NUMBER OF SURFACE WATER AND LIQUID SAMPLE LOCATIONS</b>		
<b>4</b>	<b>Number of Surface Water and Liquid Sample Locations</b>	<b>3 sample locations</b>
<b>5 NUMBER OF SOIL, SLUDGE, AND SEDIMENT SAMPLE LOCATIONS</b>		
<b>5</b>	<b>Number of Soil, Sludge, and Sediment Sample Locations</b>	<b>0 sample locations</b>
<b>6 NUMBER OF GROUNDWATER SAMPLE LOCATIONS</b>		
<b>6</b>	<b>Number of Groundwater Sample Locations</b>	<b>0 sample locations</b>
<b>7 NUMBER OF LYSIMETERS TO BE SAMPLED</b>		
<b>7</b>	<b>Number of Lysimeters to be Sampled</b>	<b>0 lysimeters</b>

Assumed 1 water sample per tank of decontamination fluid.

Facility Name: KW PLASTICS OF CALIFORNIA

Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Sequence: 2

Form Sequence: 1

**SUMMARY WORKSHEET**

Activity		Worksheet Number	Cost
1.	Drilling and Subsurface Soil Sample	SA-3	\$0
2.	Concrete Core Sample	SA-4	\$0
3.	Wipe Sample	SA-5	\$0
4.	Surface Water and Liquid Sample	SA-6	\$168
5.	Soil, Sludge, and Sediment Sample	SA-7	\$0
6.	Groundwater Sample	SA-8	\$0
7.	Soil-Pore Liquid Sample	SA-9	\$0
8.	Analysis of Subsurface Soil Sample	SA-10	\$0
TOTAL SAMPLING AND ANALYSIS COST			\$168

# SAMPLING AND ANALYSIS

**SA-6****SURFACE WATER AND LIQUID SAMPLE - Page 1 of 2**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

Form Sequence: 1

**1 COLLECTION OF SURFACE WATER AND LIQUID SAMPLES**

1.A	Number of sampling locations	3 sample locations	
1.B	Labor and equipment cost per work hour Appropriate level of PPE	\$91.88 /work hr Protection Level D	
1.C	Work rate to collect samples from one sampling location	0.500 work hr /location	
1.D	Number of hours required to collect all samples	1.5 work hrs	
1.E	Cost of Collection per Sampling Event		\$138 /event

**2 ANALYSIS OF SURFACE WATER AND LIQUID SAMPLE**

2	Cost of Analysis per Sampling Event (total from next page)	\$30 /event
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**3 SAMPLING EVENTS**

3	Number of sampling events	1 events	
TOTAL COST OF SAMPLING AND ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES			\$168

# SAMPLING AND ANALYSIS

SA-6

## SURFACE WATER AND LIQUID SAMPLE ATTACHMENT- Page 2 of 2

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

### Cost of Analysis per Sampling Event Reference for Line 2.A

Column 1  Analytical Parameter and Method Reference	Column 2  Cost of Analysis (\$) per Parameter	Column 3  Number of Analyses, including QC Analyses	Column 4  Total Cost of Analysis (\$) per Parameter per Event
lead	\$10.00	3	\$30.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
TOTAL COST FOR ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES			\$30 /event

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

Form Sequence: 1

1 TRANSPORTATION OF WASTE IN DRUMS			
1.A	Number of drums of waste	0 drums	
1.B	Number of truckloads needed to transport waste in drums (80 drums per truckload)	0 truckloads	
1.C	Type of Waste Hazardous 300 miles at \$3.15 /mile		
1.D	Cost to transport one truckload of 55-gallon drums	\$945 /truckload	
1.E	Cost to Transport Waste in Drums		\$0
2 TRANSPORTATION OF BULK LIQUIDS			
2.A	Gallons of liquid waste	14,988 gal	
2.B	Number of truckloads needed to transport bulk free liquid waste (6,900 gallons per truckload)	3 truckloads	
2.C	Type of Waste Hazardous 300 miles at \$4.30 /mile		
2.D	Cost to transport one truckload of bulk liquids	\$1,290 /truckload	
2.E	Cost to Transport Bulk Liquid Waste		\$3,870
3 TRANSPORTATION OF BULK WASTE			
3.A	Number of waste debris boxes	0 debris boxes	
3.B	Number of truckloads needed to transport bulk waste (one debris box per truckload)	0 truckloads	
3.C	Type of Waste Hazardous 300 miles at \$3.15 /mile		
3.D	Cost to transport one truckload of bulk waste 250 miles	\$945 /truckload	
3.E	Cost to Transport Bulk Waste		\$0
TOTAL COST OF TRANSPORTATION OF WASTE			\$3,870

# TREATMENT AND DISPOSAL

TD-1

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

## SUMMARY WORKSHEET

Activity		Worksheet Number	Cost
1.	Treatment and Disposal of Waste	TD-2	\$40,813
2.	Transportation and Disposal of Decontamination Fluids	TD-3	\$13,195
TOTAL COST OF TREATMENT AND DISPOSAL			\$54,008

# TREATMENT AND DISPOSAL

**TD-2***TREATMENT AND DISPOSAL- Page 1 of 2*

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2

Form Sequence: 1

1 TREATMENT AND DISPOSAL OF WASTE 1 Tank/Piping Com			
1.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	74.2 yd <sup>3</sup>	
1.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
1.C	Amount in tons of waste to be treated and disposed of	62.5 tons	
1.D	Treatment and disposal cost per ton	\$653.00 /ton	
1.E	Cost to Treat and Dispose of Waste 1		\$40,813
2 TREATMENT AND DISPOSAL OF WASTE 2			
2.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
2.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
2.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
2.D	Treatment and disposal cost per ton	\$0.00 /ton	
2.E	Cost to Treat and Dispose of Waste 2		\$0



# TREATMENT AND DISPOSAL

TD-2

TREATMENT AND DISPOSAL- Page 2 of 2

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2 Form Sequence: 1

## 3 TREATMENT AND DISPOSAL OF WASTE 3

3.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
3.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
3.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
3.D	Treatment and disposal cost per ton	\$0.00 /ton	
3.E	Cost to Treat and Dispose of Waste 3		\$0

## 4 TREATMENT AND DISPOSAL OF WASTE 4

4.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
4.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
4.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
4.D	Treatment and disposal cost per ton	\$0.00 /ton	
4.E	Cost to Treat and Dispose of Waste 4		\$0
TOTAL COST OF TREATMENT AND DISPOSAL			\$40,813

# TREATMENT AND DISPOSAL

**TD-3**

## TRANSPORTATION AND DISPOSAL OF DECONTAMINATION FLUIDS- Page 1 of 1

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 2, 4, 5, 6, 7, 8

Unit Sequence: 2 Form Sequence: 1

1	Volume of decontamination fluid generated from closure activities	10,765 total gal	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$48.19 /work hr Protection Level D	
3	Work rate to pump decontamination fluid to a holding tank	0.00007 work hrs/ gallon	
4	Number of hours required to pump decontamination fluid to a holding tank	1 work hrs	
5	Subtotal of labor and equipment costs to pump decontamination fluid to a holding tank		\$48
6	Number of days required to rent holding tank	1 days	
7	Holding tank rental fee (10,000 gal tank per day)	\$330 /day	
8	Number of tanks required	2 tanks	
9	Subtotal of tank rental costs		\$660
10	Transportation and disposal costs for bulk liquid	\$1.16 /gal	\$12,487
<b>TOTAL COST TO TRANSPORT AND DISPOSE OF DECONTAMINATION FLUID AS A BULK LIQUID</b>			<b>\$13,195</b>

# TANK SYSTEMS

# TS-1

INVENTORY - Page 1 of 3

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

Form Sequence: 1

1 UNIT DESCRIPTION AND MAXIMUM PERMITTED CAPACITY		
1.A	Type of tank system	aboveground
1.B	Height or length of tank	0 ft
1.C	Diameter of tank	0 ft
1.D	Maximum permitted capacity of the tank	15,600 gal
1.E	Total length of ancillary piping	1,040.0 ft
1.F	Nominal size of ancillary piping	6.00 in
1.G	Maximum capacity of ancillary piping	1,560 gal
1.H	Maximum capacity of tank and ancillary piping	17,160 gal
2 SURFACE AREA OF TANK SYSTEM		
2	Surface area of tank	1,237.8 ft <sup>2</sup>

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

<b>3 VOLUME OF TANK SYSTEM TO BE REMOVED</b>			
3.A	Volume of Tank System to be Removed		2,085.6 ft <sup>3</sup>
3.B	Volume of Tank System to be Removed in yd <sup>3</sup>		77.2 yd <sup>3</sup>
<b>4 SURFACE AREA OF SECONDARY CONTAINMENT SYSTEM</b>			
4.A	Length	57.0 ft	
4.B	Width	41.5 ft	
4.C	Surface Area of Secondary Containment System Pad		2,365.5 ft <sup>2</sup>
4.D	Surface Area of Secondary Containment System Pad in yd <sup>2</sup>		262.8 yd <sup>2</sup>
<b>5 VOLUME OF SECONDARY CONTAINMENT SYSTEM</b>			
5.A	Thickness	0.75 ft	
5.B	Volume of Secondary Containment Pad		65.7 yd <sup>3</sup>
<b>6 SURFACE AREA OF SECONDARY CONTAINMENT SYSTEM BERM</b>			
6.A	Total Length	141.0 ft	
6.B	Height	0.67 ft	
6.C	Surface Area of Secondary Containment System Berm		94.5 ft <sup>2</sup>
6.D	Surface Area of Secondary Containment System Berm in yd <sup>2</sup>		10.5 yd <sup>2</sup>

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

<b>7 VOLUME OF SECONDARY CONTAINMENT SYSTEM BERM</b>			
7.A	Thickness	0.00 ft	
7.B	Volume of Secondary Containment System Berm		0.0 yd <sup>3</sup>
<b>8 SURFACE AREA OF OTHER STRUCTURES IN SECONDARY CONTAINMENT SYSTEM</b>			
8.A	Surface Area of Other Structures		176.5 ft <sup>2</sup>
8.B	Surface Area of Other Structures in yd <sup>2</sup>		19.6 yd <sup>2</sup>
<b>9 VOLUME OF OTHER STRUCTURES IN SECONDARY CONTAINMENT SYSTEM</b>			
9	Volume of Other Structures		3.5 yd <sup>3</sup>
<b>10 VOLUME OF CONTAMINATED SOIL TO BE REMOVED</b>			
10.A	Length	0.0 ft	
10.B	Width	0.0 ft	
10.C	Depth	0.00 ft	
10.D	Volume of Contaminated Soil to be Removed		0.0 ft <sup>3</sup>
10.E	Volume of Contaminated Soil to be Removed in yd <sup>3</sup>		0.0 yd <sup>3</sup>

Tanks 8 and 9 include secondary containment in existing treatment area.

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1 07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

## SUMMARY WORKSHEET

Activity		Worksheet Number	Cost
1.	Removal of Waste	TS-3	\$345
2.	Tank System Purging (ignitable wastes only)	TS-4	\$0
3.	Flushing the Tank and Piping	TS-5	\$0
4.	Excavation, Disassembly, and Loading	TS-6	\$8,149
5.	Demolition and Removal of Containment System	TS-7	\$0
6.	Removal of Soil	TS-8	\$0
7.	Backfill and Grading	BF-1	\$0
8.	Decontamination	DC-1	\$11,159
9.	Sampling and Analysis	SA-2	\$168
10.	Monitoring Well Installation	MW-1	\$0
11.	Transportation	TR-1	\$3,870
12.	Treatment and Disposal	TD-1	\$72,203
13.	User Defined Cost	UD-1	\$0
14.	<b>Subtotal of Closure Costs</b>		<b>\$95,894</b>
15.	Engineering Expenses      Percent Applied      10.00 %		\$9,589
16.	Certification of Closure	TS-09	\$3,640
17.	<b>Subtotal</b>		<b>\$109,123</b>
18.	Contingency Allowance      Percent Applied      20.00 %		\$21,825
19.	Landfill Closure (Cover Installation)	CI-2	\$0
<b>TOTAL COST OF CLOSURE</b> (Rounded to      \$130,000 )			<b>\$130,948</b>

Includes Tanks 9 and 10, plus the secondary containment for the existing treatment area. Also includes heavy equipment used in closure.

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1 07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3 Form Sequence: 1

1	Maximum volume of waste to be removed from the tank and ancillary piping	17,160 gal	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$115.16 /work hr Protection Level D	
3	Work rate required to remove waste from tank and ancillary piping	0.00017 work hr/ gal capacity	
4	Number of hours required to remove waste from tank and ancillary piping	3.0 work hrs	
TOTAL COST OF REMOVAL OF WASTE FROM TANK AND ANCILLARY PIPING			\$345

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

Form Sequence: 1

**1 EXCAVATION AND LOADING (FOR IN-GROUND AND UNDERGROUND TANKS ONLY)**

1.A	Capacity of tank	0 gal	
1.B	Labor and equipment cost per work hour Appropriate level of PPE	\$0.00 /work hr Protection Level D	
1.C	Work rate required to excavate and load tank per gallon capacity	0.00220 work hr/ gal capacity	
1.D	Number of hours required to excavate and load tank	0.0 work hrs	
1.E	<b>Cost to Excavate and Load Tank</b>		<b>\$0</b>

**2 DISASSEMBLY OF ANCILLARY PIPING**

2.A	Length of ancillary piping to be disassembled	1,040.0 ft	
2.B	Labor and equipment cost per work hour Appropriate level of PPE	\$46.55 /work hr Protection Level D	
2.C	Work rate required to disassemble one ft of pipe	0.15000 work hr/ft	
2.D	Number of hours required to disassemble ancillary piping	156.0 work hrs	
2.E	<b>Cost of Disassembly of Ancillary Piping</b>		<b>\$7,262</b>



## EXCAVATION, DISASSEMBLY, AND LOADING - Page 2 of 2

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

3 LOADING (FOR ON-GROUND AND ABOVEGROUND TANKS ONLY)			
3.A	Capacity of tank	15,600 gal	
3.B	Labor and equipment cost per work hour Appropriate level of PPE	\$50.66 /work hr Protection Level D	
3.C	Work rate required to load tank per gallon capacity	0.00110 work hr/ gal capacity	
3.D	Number of hours required to load tank	17.5 work hrs	
3.E	Cost to Load Tank		\$887
TOTAL COST OF EXCAVATION, DISASSEMBLY, AND LOADING			\$8,149

## CERTIFICATION OF CLOSURE - Page 1 of 1

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3 Form Sequence: 1

1	Number of units requiring certification of closure	1	
2	Cost of certification of closure per unit	\$3,640	
TOTAL COST OF CERTIFICATION OF CLOSURE			\$3,640

# DECONTAMINATION

DC-1

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

## SUMMARY WORKSHEET

Activity		Worksheet Number	Cost
1.	Decontamination of Unit by Steam Cleaning or Pressure Washing	DC-2	\$8,432
2.	Decontamination of Unit by Sandblasting	DC-3	\$0
3.	Decontamination of Heavy Equipment	DC-4	\$2,727
TOTAL COST OF DECONTAMINATION			\$11,159

# DECONTAMINATION

**DC-2****DECONTAMINATION OF UNIT BY STEAM CLEANING OR PRESSURE WASHING - Page 1 of 1**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3 Form Sequence: 1

1	Area of unit to be decontaminated	5,105.6 ft <sup>2</sup>	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$41.23 /work hr Protection Level D	
3	Work rate to steam clean or pressure wash one ft <sup>2</sup>	0.04000 work hr/ ft <sup>2</sup>	
4	Number of hours required to steam clean or pressure wash the unit	204.5 work hrs	
5	Subtotal of labor and equipment costs to decontaminate unit by steam cleaning or pressure washing		\$8,432
6	Volume of decontamination fluid generated	20,422 gal	
7	Number of drums required to contain decontamination fluid for removal	0 drums	
8	Cost of one drum	\$62.05 /drum	
9	Cost of drums needed to contain decontamination fluid		\$0
TOTAL COST OF DECONTAMINATION OF UNIT BY STEAM CLEANING OR PRESSURE WASHING			\$8,432

User selected BULK for holding decontamination fluid

Decontamination area includes Tanks 9 and 10 in addition to the containment area.

# DECONTAMINATION

**DC-4****DECONTAMINATION OF HEAVY EQUIPMENT - Page 1 of 1**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3 Form Sequence: 1

1	Number of hours needed to decontaminate all heavy equipment	6 work hrs	
2	Cost of steam cleaner rental per hour	\$8.89 /hr	
3	Subtotal of steam cleaner rental costs		\$53
4	Labor cost per work hour Appropriate level of PPE	\$35.75 /work hr Protection Level D	
5	Subtotal of labor costs		\$215
6	Volume of decontamination fluid	600 gal	
7	Number of drums required to contain decontamination fluid for removal	0 drums	
8	Cost of one drum	\$62.05 /drum	
9	Cost of drums needed to contain decontamination fluid		\$0
10	Cost of construction of temporary decontamination area for heavy equipment.		\$1,506
11	Cost of demolition of temporary decontamination area for heavy equipment.		\$954
<b>TOTAL COST OF DECONTAMINATION OF HEAVY EQUIPMENT</b>			<b>\$2,727</b>

User selected BULK for holding decontamination fluid

Assumed one front-end loader, one backhoe, two forklifts, requiring 6 total hours of decontamination. The heavy equipment included in this unit is used for all units during closure.

# SAMPLING AND ANALYSIS

**SA-1***INVENTORY - Page 1 of 1*

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

<b>1 NUMBER OF DRILLING AND SUBSURFACE SOIL SAMPLES</b>		
<b>1</b>	<b>Number of Drilling and Subsurface Soil Samples</b>	<b>0 samples</b>
<b>2 NUMBER OF CONCRETE CORE SAMPLES</b>		
<b>2</b>	<b>Number of Concrete Core Samples</b>	<b>0 samples</b>
<b>3 NUMBER OF WIPE SAMPLE LOCATIONS</b>		
<b>3</b>	<b>Number of Wipe Sample Locations</b>	<b>0 sample locations</b>
<b>4 NUMBER OF SURFACE WATER AND LIQUID SAMPLE LOCATIONS</b>		
<b>4</b>	<b>Number of Surface Water and Liquid Sample Locations</b>	<b>0 sample locations</b>
<b>5 NUMBER OF SOIL, SLUDGE, AND SEDIMENT SAMPLE LOCATIONS</b>		
<b>5</b>	<b>Number of Soil, Sludge, and Sediment Sample Locations</b>	<b>0 sample locations</b>
<b>6 NUMBER OF GROUNDWATER SAMPLE LOCATIONS</b>		
<b>6</b>	<b>Number of Groundwater Sample Locations</b>	<b>0 sample locations</b>
<b>7 NUMBER OF LYSIMETERS TO BE SAMPLED</b>		
<b>7</b>	<b>Number of Lysimeters to be Sampled</b>	<b>0 lysimeters</b>

Assumed collection and analysis of one water sample per tank of decontamination fluid.

Facility Name: KW PLASTICS OF CALIFORNIA

Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Sequence: 3

Form Sequence: 1

**SUMMARY WORKSHEET**

Activity		Worksheet Number	Cost
1.	Drilling and Subsurface Soil Sample	SA-3	\$0
2.	Concrete Core Sample	SA-4	\$0
3.	Wipe Sample	SA-5	\$0
4.	Surface Water and Liquid Sample	SA-6	\$168
5.	Soil, Sludge, and Sediment Sample	SA-7	\$0
6.	Groundwater Sample	SA-8	\$0
7.	Soil-Pore Liquid Sample	SA-9	\$0
8.	Analysis of Subsurface Soil Sample	SA-10	\$0
TOTAL SAMPLING AND ANALYSIS COST			\$168

# SAMPLING AND ANALYSIS

**SA-6****SURFACE WATER AND LIQUID SAMPLE - Page 1 of 2**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

Form Sequence: 1

1 COLLECTION OF SURFACE WATER AND LIQUID SAMPLES			
1.A	Number of sampling locations	3 sample locations	
1.B	Labor and equipment cost per work hour Appropriate level of PPE	\$91.88 /work hr Protection Level D	
1.C	Work rate to collect samples from one sampling location	0.500 work hr /location	
1.D	Number of hours required to collect all samples	1.5 work hrs	
1.E	Cost of Collection per Sampling Event		\$138 /event
2 ANALYSIS OF SURFACE WATER AND LIQUID SAMPLE			
2	Cost of Analysis per Sampling Event (total from next page)		\$30 /event
3 SAMPLING EVENTS			
3	Number of sampling events	1 events	
TOTAL COST OF SAMPLING AND ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES			\$168



# SAMPLING AND ANALYSIS

**SA-6***SURFACE WATER AND LIQUID SAMPLE ATTACHMENT- Page 2 of 2*

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

**Cost of Analysis per Sampling Event  
Reference for Line 2.A**

Column 1  Analytical Parameter and Method Reference	Column 2  Cost of Analysis (\$) per Parameter	Column 3  Number of Analyses, including QC Analyses	Column 4  Total Cost of Analysis (\$) per Parameter per Event
lead	\$10.00	3	\$30.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
œ}	\$0.00	0	\$0.00
TOTAL COST FOR ANALYSIS OF SURFACE WATER AND LIQUID SAMPLES			\$30 /event

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

Form Sequence: 1

1 TRANSPORTATION OF WASTE IN DRUMS			
1.A	Number of drums of waste	0 drums	
1.B	Number of truckloads needed to transport waste in drums (80 drums per truckload)	0 truckloads	
1.C	Type of Waste Hazardous 300 miles at \$3.15 /mile		
1.D	Cost to transport one truckload of 55-gallon drums	\$945 /truckload	
1.E	Cost to Transport Waste in Drums		\$0
2 TRANSPORTATION OF BULK LIQUIDS			
2.A	Gallons of liquid waste	17,160 gal	
2.B	Number of truckloads needed to transport bulk free liquid waste (6,900 gallons per truckload)	3 truckloads	
2.C	Type of Waste Hazardous 300 miles at \$4.30 /mile		
2.D	Cost to transport one truckload of bulk liquids	\$1,290 /truckload	
2.E	Cost to Transport Bulk Liquid Waste		\$3,870
3 TRANSPORTATION OF BULK WASTE			
3.A	Number of waste debris boxes	0 debris boxes	
3.B	Number of truckloads needed to transport bulk waste (one debris box per truckload)	0 truckloads	
3.C	Type of Waste Hazardous 300 miles at \$3.15 /mile		
3.D	Cost to transport one truckload of bulk waste 250 miles	\$945 /truckload	
3.E	Cost to Transport Bulk Waste		\$0
TOTAL COST OF TRANSPORTATION OF WASTE			\$3,870

# TREATMENT AND DISPOSAL

TD-1

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

## SUMMARY WORKSHEET

Activity		Worksheet Number	Cost
1.	Treatment and Disposal of Waste	TD-2	\$46,755
2.	Transportation and Disposal of Decontamination Fluids	TD-3	\$25,448
TOTAL COST OF TREATMENT AND DISPOSAL			\$72,203

# TREATMENT AND DISPOSAL

**TD-2***TREATMENT AND DISPOSAL- Page 1 of 2*

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3

Form Sequence: 1

1 TREATMENT AND DISPOSAL OF WASTE 1 Tank/Piping Con			
1.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	85.0 yd <sup>3</sup>	
1.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
1.C	Amount in tons of waste to be treated and disposed of	71.6 tons	
1.D	Treatment and disposal cost per ton	\$653.00 /ton	
1.E	Cost to Treat and Dispose of Waste 1		\$46,755
2 TREATMENT AND DISPOSAL OF WASTE 2			
2.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
2.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
2.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
2.D	Treatment and disposal cost per ton	\$0.00 /ton	
2.E	Cost to Treat and Dispose of Waste 2		\$0

Facility Name: KW PLASTICS OF CALIFORNIA

TREATMENT AND DISPOSAL- Page 2 of 2

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3 Form Sequence: 1

<b>3 TREATMENT AND DISPOSAL OF WASTE 3</b>			
3.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
3.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
3.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
3.D	Treatment and disposal cost per ton	\$0.00 /ton	
3.E	<b>Cost to Treat and Dispose of Waste 3</b>		<b>\$0</b>
<b>4 TREATMENT AND DISPOSAL OF WASTE 4</b>			
4.A	Volume in yd <sup>3</sup> of waste to be treated and disposed of	0.0 yd <sup>3</sup>	
4.B	Density of waste	1,685.8 lb/yd <sup>3</sup>	
4.C	Amount in tons of waste to be treated and disposed of	0.0 tons	
4.D	Treatment and disposal cost per ton	\$0.00 /ton	
4.E	<b>Cost to Treat and Dispose of Waste 4</b>		<b>\$0</b>
<b>TOTAL COST OF TREATMENT AND DISPOSAL</b>			<b>\$46,755</b>

# TREATMENT AND DISPOSAL

**TD-3****TRANSPORTATION AND DISPOSAL OF DECONTAMINATION FLUIDS- Page 1 of 1**

Facility Name: KW PLASTICS OF CALIFORNIA

Facility Sequence: 1

07/27/2007

Unit Name: TANKS 9 AND 10

Unit Sequence: 3 Form Sequence: 1

1	Volume of decontamination fluid generated from closure activities	21,022 total gal	
2	Labor and equipment cost per work hour Appropriate level of PPE	\$48.19 /work hr Protection Level D	
3	Work rate to pump decontamination fluid to a holding tank	0.00007 work hrs/ gallon	
4	Number of hours required to pump decontamination fluid to a holding tank	1 work hrs	
5	Subtotal of labor and equipment costs to pump decontamination fluid to a holding tank		\$72
6	Number of days required to rent holding tank	1 days	
7	Holding tank rental fee (10,000 gal tank per day)	\$330 /day	
8	Number of tanks required	3 tanks	
9	Subtotal of tank rental costs		\$990
10	Transportation and disposal costs for bulk liquid	\$1.16 /gal	\$24,386
<b>TOTAL COST TO TRANSPORT AND DISPOSE OF DECONTAMINATION FLUID AS A BULK LIQUID</b>			<b>\$25,448</b>